



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBW6505G00831-3G-19

Job Sheet 169276



Part No: RBW6505G00831-3G-19

Job Qty: 2 ea

Part Name: Swivel Base



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/6/17

Job Tracking No:

Due Date: 12/8/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBW6505G00831-3G Rev2 IPP Rev A 17.11.21 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea	12/7/17	12/7/17	0.00	0.00	Start Up Container		
100	Bandsaw	2 pcs	12/7/17	12/7/17	0.00	0.50	Bandsaw1		
110	Mori Seiki	2 pcs	12/7/17	12/7/17	0.00	2.00	MORI SL2500Y		
120	QC	2 pcs	12/7/17	12/7/17	0.00	0.00	QC2		
122	Mori Seiki	2 pcs	12/8/17	12/8/17	0.00	2.00	MORI NV5000-1		
124	QC	2 pcs	12/8/17	12/8/17	0.00	0.00	QC2 Machining-1		
130	QC	2 pcs	12/8/17	12/8/17	0.00	0.00	QC8		
150	Outsource 3	2 pcs	12/8/17	12/8/17			ATG001-VC CAD B/C		
160	Packaging	2 pcs	12/8/17	12/8/17	0.00	0.00	Packaging2		
170	QC	2 pcs	12/8/17	12/8/17	0.00	0.00	QC6		
180	Packaging	2 pcs	12/8/17	12/8/17	0.00	0.00	Packaging3 GA		
190	QC21-SA	2 Ea	12/8/17	12/8/17	0.00	0.00	QC21		



S018294



Swivel Base

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA

TEL.: 1 613 632-5200

Email: sales@dartaero.com

www.dartaerospace.com

Color: Yellow -

Std Qty
0

PART NO:

RBW6505G00831-3G-19

Revision:

Operation:

Change No:

Start up Operation

Mfg Date: 12/06/17

Job No: 169276

jeunesse.marie

DAS
03
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS			
	Rework ☐	Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐		

Date : _____ Step #: _____

Descrip

S018294



Swivel Base

PART NO:
Revision:
Operation:
Change No:

RBW6505G00831 – 3G – 19

Outsource

Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

MRB (QSI042) Approval

Completed By

Lead hand / Supervisor
Approval VerificationQC / QA Coordinator
Approval

Root Cause											
Environment ☐	No Re-vi ☐										
Design ☐	Operato ☐										
Doc/Data ☐	Offset/Si ☐										
Equip/Tooling ☐	Supplier ☐										
Handling/Pre ☐	Training ☐										
Material ☐	Use for Testing ☐										
Internal Transport ☐	Poor Information ☐										
Tribal Knowledge ☐	Rushing ☐										
LOA ☐	Product Improvement ☐										
Substation ☐	Process Improvement ☐										
Past Expiry Date ☐	Manufacturing Process ☐										
Misidentified ☐	Past Due ☐										
OTHER : _____											

Mfg Date: 12/06/17

Job No: 169276

ss/Surge
gram

Positioned Wrong ☐
Outside Dimensions ☐
Over/Under tolerance ☐
Part Incorrect ☐
Part Lost/Missing ☐
Part Moved ☐
Drawing ☐
Finish ☐
Misread ☐
Turning Sequence ☐

www

Wrong Stock Pulled ☐
Out of Sequence ☐
Off-set ☐
Mislabeled ☐
Fit/Function ☐
Misaligned/off center ☐

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REVISIONS			
REV	DESCRIPTION	DATE	INITIAL
2	-19 CHD COUNTER BORED HOLES B.C. FROM $\phi 5.375$ TO $\phi 5.512$.	7/12/2013	RJC
			RW

TEO ATTACHED

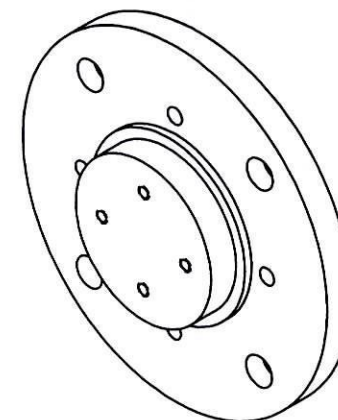
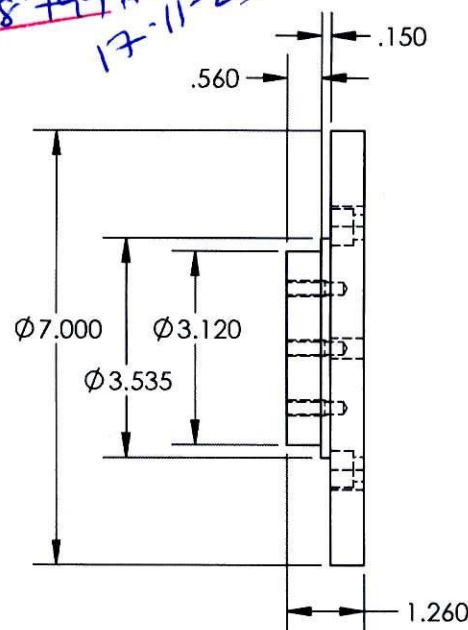
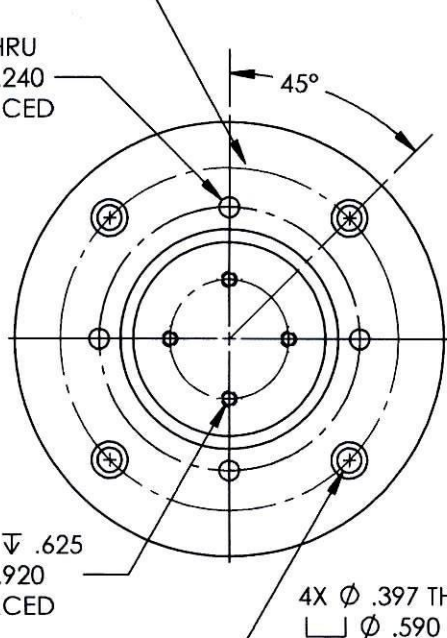
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 168799 HJS
17-11-23

ENGRAVE P/N
"RBW6505G01251-3G"

4X $\phi .323$ THRU
ON B.C. $\phi 4.240$
EQUALLY SPACED

4X 1/4-20 UNC $\nabla .625$
ON B.C. $\phi 1.920$
EQUALLY SPACED

4X $\phi .397$ THRU ALL
ON $\phi 5.512$ B.C.
EQUALLY SPACED



(-19)

SWIVEL BASE

RED BARN MACHINE	
TITLE TROLLEY ADAPTER, TGB SUPPORT	
DWG NO. RBW6505G00831-3G-19	REV 2
MAT'L 1018	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED: <i>D Weil</i>
.XXX $\pm .005$	HEAT TREAT
.XX $\pm .01$	FINISH
.X $\pm .1$	
ANGLES $\pm .5^\circ$	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC QQ-P-416F, TYPE II, CLASS II
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL AW139
SCALE 1:3	DATE 1/20/2012
SHEET 12 OF 16	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; font-size: small;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																		
Large Fab ☐	Composite ☐	Supplier ☐																			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval 17.12.14																	
Description Work Order Deviation		Disposition		Completed By																	
BIMSMAUIZ PIN ON BOTTOM FACE OF PART. CAN BE VIEWED BY CUSTOMER BASELINE		ACCEPTABLE TO DISCUSS PIN LOCATION.		Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☒ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☒ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER : _____																					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO038576

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO038576

PO Date: 12/6/17

Due Date: 12/20/17

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

E-MAILED

DEC 18 2017

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

DEC 18 2017

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
①	166654	RB T101338-3	Jack Screw -Issue P/O to Groupe Altech: P/O _____ -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color; Yellow - Certificate of Conformity is required	Firmed	12/20/17	6 pcs	0 pcs	6 pcs	\$25.00/pcs	\$150.00
②	168629	647.8511	Insert -Issue P/O to Groupe Altech: P/O _____ -Passivate, MIL-S-5002 TYPE 6 AS PER DWG - Certificate of Conformity is required	Firmed	12/20/17	10 pcs	0 pcs	10 pcs	\$4.545454/pcs	\$45.45
③	167623	SK145-0115-20	Clamp Bar ISSUE P/O: _____ PASSIVATE AS PER DWG ACCORDANCE WITH ASTM A967 C OF C IS REQUIRED	Firmed	12/8/17	12 pcs	0 pcs	12 pcs	\$4.545454/pcs	\$54.55
④	169330	8812827000	Extractor Black oxide finish, MIL-C-13924C Class 1	Firmed	12/20/17	10 pcs	0 pcs	10 pcs	\$10.00/pcs	\$100.00
⑤	169276	RBW6505G00831-3G-19	Swivel Base -Issue P/O to Groupe Altech: P/O _____ -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color; Yellow - Certificate of Conformity is required	Firmed	12/20/17	1 pcs	0 pcs	1 pcs	\$25.00/pcs	\$25.00

12/18/2017

PURCHASE ORDER

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	169118	RB6795635-1	Sleeve -Issue P/O to Groupe Altech; PO -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	12/20/17	2 pcs	0 pcs	2 pcs	\$10.00/pcs	\$20.00
										2x
Grand Total:										\$395.00

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A022 Apical Processing

A024 process certifications

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 12/18/17 8:09 AM dart.lavoie.chantal

22-12-17
maz



Certificat de Conformité / Certificate of Compliance

(005339-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

005339- 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
20-Dec-2017		Jessie Boisvert		038576				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
1	RBT101338-3 Rev.	RBT101338-3 01 -CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-416, TYPE II, CLASS II: CADMIUM YELLOW ***	CADMIUM CH	6	6 ✓	0	0	0
2	647.8511 Rev.	647.8511 01 -PASSIVATION-BICHROMATE [PASSIVATION BICHROMATE]	PASSIVATION CH	10	10 ✓	0	0	0
3	SK145-0115-20 Rev.	SK145-0115-20 01 -PASSIVATION- #3 [PASSIVATION #3] SPÉC: ASTM A967 C OF C ***SPÉC: AS PER DRAWING ***	PASSIVATION CH	12	12 ✓	0	0	0
4	881287000 Rev.	881287000 01 -OXIDE BLACK [OXIDE BLACK] MIL-C-13924: Black Oxide Coating ***	BLACK-OXIDE CH	10	10 ✓	0	0	0
5	RBW6505G00831-3G-19 Rev.	RBW6505G00831-3G-19 01 -CAD YELLOW 500 [CADMIUM YELLOW 500] QQ-416, TYPE II, CLASS II: CADMIUM YELLOW ***	CADMIUM CH	1	1 ✓	0	0	0
6	RB6795635-1 Rev.	RB6795635-1 01 -OXIDE BLACK [OXIDE BLACK] MIL-C-13924: CLASS 1 ***	BLACK-OXIDE CH	2	2 ✓	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

JB

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.